Socio-political, cultural and economic preferences and behaviour of the social and cultural specialists and the technocrats

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SOCIO-POLITICAL, CULTURAL AND ECONOMIC PREFERENCES AND BEHAVIOUR OF THE SOCIAL AND CULTURAL SPECIALISTS AND THE TECHNOCRATS. SOCIAL CLASS OR EDUCATION?

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ABSTRACT. Do the social and cultural specialists differ from the technocrats and other social classes with respect to their socio-political, cultural and economic preferences and behaviour? If they do, is this attributable to their level and field of education? The social and cultural specialists are assumed to form 'new' social class and the technocrats 'old' social class. A typical social class should differentiate itself with respect to moral attitudes, socio-political behaviour and lifestyle forms. To reveal whether these assumed classes are indeed typical classes, we have studied a variety of socio-political, cultural and economic preferences and behaviour of members of these social classes using the Family Survey of the Dutch Population (FSDP) 1992, 1998, 2000 and 2003. To unravel the net differences between the social and cultural specialists and the technocrats, we controlled for the field of study, the level of education and background factors. Taking these control factors into consideration, the social and cultural specialists differentiate themselves substantially from the technocrats in their socio-political and especially economic preferences and behaviour. With respect to their cultural preferences and behaviour, they do not differ significantly from the technocrats.

KEY WORDS: Social class, field of study, the social and cultural specialists, the technocrats

1. INTRODUCTION

What differentiates members of a certain class from members of other classes with respect to lifestyles? Several scholars have claimed that members of social classes have different consumption patterns, political preferences, moral attitudes, social behaviour and lifestyle forms. It is repeatedly shown that social class is related to political preferences and social action (Cotgrove and Duff, 1981; Kriesi, 1989; Lipset, 1981 [1960];

Nieuwbeerta, 1995). Social class also affects educational outcomes (Goldthorpe, 2000; Heath and Clifford, 1990; Goldthorpe et al., 1969), earnings (Heath et al., 1985; Wright, 1985), housing (Savage et al., 1992), and a variety of other lifestyle forms (Bourdieu, 1984; Ganzeboom et al., 1987; Heath et al., 1991). Scholars use these kinds of outcomes to test the construct validity of the classes (Ganzeboom et al., 1987; de Graaf and Kalmijn, 1995; de Graaf and Steijn, 1997). We use socio-political, cultural and economic outcome to test the validity of the newly distinguished social classes by Güveli et al. (2005).

New class theorists claim that there are two factions within the middle class, a 'new' class of 'knowledge workers' and an 'old' class of business owners. In accordance, Güveli et al. (2005) distinguished the social and cultural specialists from the technocrats within the service class of the EGP class schema that is devised by Erikson et al. (1979). Güveli et al. (2005) subdivided the class of high-grade professionals (I) into two classes: the high-grade technocrats (Ia) and the high-grade social and cultural specialists (Ib). They have also divided the class of low-grade professionals (II) into two classes: the high-grade technocrats (IIa) and the high-grade social and cultural specialists (IIb). These classes differ in their political orientation significantly (Güveli et al., 2005).

If the newly distinguished classes are correctly announced as social classes they are expected to differentiate with regard to their attitudes, behaviour and different lifestyle forms. These outcomes are in this paper categorized into socio-political, cultural and economic preferences and behaviour. In this paper, we examine the construct validity of the newly distinguished social classes by revealing whether these social classes differ from 'old' social classes in their socio-political, cultural and economic preferences and behaviour. Therefore we ask: *to what extent do the high- and low-grade social and cultural specialists differ from the high- and low-grade technocrats in their socio-political, cultural and economic preferences and behaviour?*

However, some scholars have argued the education of individuals to be an important factor for shaping attitudes, political preferences and lifestyle forms (Baer and Lambert, 1982). Therefore, one can claim that differences in attitudes, behaviour and lifestyle forms between the members of the newly distinguished social classes are not related to social class positions but instead to educational differences. Brint (1984) backs this view and shows that differences between the 'new' and the 'old' classes are

related to the level of education. However, the newly distinguished classes do not differ that much in their level of education but in their field of study. The social and cultural specialists are usually more trained in social and cultural fields while the technocrats are more trained in economic and technical fields. Therefore, there is an overlap between the sorts of skills taught in their field of study of these class members and the skills that are required in their employment. Van de Werfhorst and de Graaf (2004) showed that the social and cultural specialists vote significantly more for left-wing political parties than the technocrats even if their field of study is taken into consideration. In this paper, we examine the relation between social class position and socio-political, cultural and economic preferences and behaviour, simultaneously taking the field of study, the level of education and background factors that are causally prior to class position and education into consideration. Hence we ask: *to what extent do the high- and low-grade social and cultural specialists differ from the high- and low-grade technocrats in their socio-political, cultural and economic preferences and behaviour, when the field of study, the level of education and other individual and background factors are taken into consideration?*

There is hardly any study that controls for level and field of education while investigating the relation between social class and outcomes. The study of van de Werfhorst and de Graaf (2004) is an exception. Our study distinguishes itself in three important points from the study of van de Werfhorst and de Graaf (2004). Fist, an improved classification of the 'new' and 'old' classes is used in this study. It is refined with respect to classification rules and on the use of expert knowledge to allocate the occupations within the service class into the 'new' and 'old' classes. Second, this study uses more outcome variables (dependent variables) on socio-political, cultural and economic issues. Doing so gives the opportunity to validate the adjusted EGP class schema on more areas. By using more dependent variables, one can reflect the social cleavages within the service class more properly and can answer the question of whether these cleavages show social class divisions more accurately. Finally, this study uses more data. Van de Werfhorst and de Graaf (2004) used Family Survey of the Dutch Populations (FSDP) 1992, 1998, and 2000 while we add the FSDP 2003 to the analysis. These surveys are unique because they contain a lot of information about people's political behaviour, attitudes and different lifestyle forms together with the level and field of education and lot of other individual and background information.

2. THEORY AND EXPECTATIONS

2.1. *New Classes and the Criteria for Distinguishing Them*

The new class theorists claim that a 'new' class of knowledge workers gain power in the society against an 'old' class of business owners and executives (Bruce-Biggs, 1979; Esping-Andersen, 1993; Kriesi, 1989; Lamont, 1987). The common feature of the new class theorists is the criteria they distinguish the knowledge workers from managers and executives. They claim that managers and executives try to control knowledge workers but they cannot do this easily because their specialised knowledge is relatively difficult to control (Kriesi, 1989; Wright, 1997). Therefore, by possessing specialist knowledge, the professionals gain power and autonomy within society (Güveli et al., 2005).

Following the new class theorists, the social and cultural specialists are distinguished from the technocrats (Güveli et al., 2005). The classes that are claimed to be the 'new' and the 'old' social classes within the service class are distinguished according to a combination of two criteria. First, occupations that are relatively difficult to control by employers, as their performance is mostly an application of expert knowledge and skills that cannot be controlled by others without long preparation. Second, occupational conduct needs to be based on social services and/or on social and cultural skills and knowledge in order to become classified as a *social and cultural specialist* ('new' class). All other occupations within the service class are classified as a *technocrat* ('old' class). Experts on occupation and labour markets assigned the occupations within the service class into the 'new' and 'old' classes. This procedure will be described in detail next.

2.2. *Social Class and Socio-Political, Cultural and Economic Preferences and Behaviour*

Weber (1922) is one of the scholars who claimed the industrial societies to be divided into social classes that affect people's economic and social preferences. Weber (1922) also argued that a social class typifies itself by the collective action of class members. Traditionally, social classes are used to examine political preferences. However, several scholars showed the significance of social class on explaining the social and economic issues (Aydin, 2006; Brooks et al., 2006; Evans, 2000; Hout et al., 1995; Kriesi, 1989; Lipset, 1981 [1960]; Manza and Brooks, 1996), while others showed the importance of social class on consumption patterns and cultural preferences (Ganzeboom et al., 1987; de Graaf and Kalmijn, 1995).

Kriesi (1989) linked the social class position of social and cultural specialists and technocrats to support for new social movements in the Netherlands. He argued that the relative difficulty of controlling the work performance of social and cultural specialists gives them a certain degree of autonomy and power. As a result, social and cultural specialists use this power to improve the quality of their specialization and that of public services. Technocrats on the other hand seek to preserve the viability of organization they work for. Bourdieu (1984) also linked social class position to societal outcomes. Bourdieu and Passeron (1977) asserted that people's objective constrains, i.e. (lack of) resources establish their social positions, which in turn engender their preferences and practices.

The social and cultural specialists and the technocrats differ in their work conditions. The social and cultural specialists generally work in the public sector and serve people with their specialized knowledge. Their work tasks are relatively less controllable than the technocrats. According to Güveli et al. (2005), it is the combination of these factors, such as less controllability, possessing knowledge on social and cultural issues and the services they give to patients, students or clients, that make social and cultural specialists to develop relatively more progressive attitudes and vote more for left-wing political parties than the technocrats. Lamont (1987) claimed that the relatively autonomous work conditions of the social and cultural specialists are their common class interests. These specialists promote high taxes, support political ideologies that favour non-economic aspects of social life.

The social and cultural specialists have more social and cultural skills while the technocrats possess more economic, managerial and technical skills. Bourdieu c.s. (Bourdieu, 1984; Bourdieu and Passeron, 1977) distinguished occupations with cultural features from occupations with economic features and labels the incumbents of these occupations as *cultural* and *economic elites*, respectively. These two kinds of occupations correspond with the classification of the 'new' and 'old' social classes within the service class. Occupations with social and cultural features are classified as social and cultural specialists and other occupations with economic features correspond with the technocratic faction.

Bourdieu (1984) linked occupational characteristics to attitudes, cultural forms, consumption patterns and lifestyle forms. He argued that occupational characteristics stand for the resources the incumbents possess. He claimed that members of occupations with social or/and cultural capital consume relatively more cultural goods while members of occupations with economic capital prefer relatively more economic goods. For example, the social and cultural specialists more often read serious literature, go to

theatres, visit museums, go on historical or cultural vacations and enjoy modern art whereas the technocrats are more likely to buy classic art, go on luxury vacations, live in expensive houses and so on.

Social-cultural occupations, like teachers, social workers, psychologists and artists, require specialist knowledge and social and cultural skills to serve people's needs and well being in society. This kind of knowledge and skills are relatively more humanistic and value-laden and occupations requiring these knowledge and skills are not instrumental for economic goals. Consequently, these features make the members of these occupations to develop more progressive socio-political, cultural and economic attitudes and behaviour. Technocratic occupations, on the other hand, like managers, administrators, and technicians have specialist knowledge and skills that serve the society in its specific economic, technical and structural needs. This kind of knowledge and skills make the members of these occupations to develop relatively more conservative ideas on socio-political, cultural and economic issues.

Subsequently, Bourdieu (1984) asserted that social and cultural specialists distinguish themselves by their cultural tastes and consumption patterns while the economic elites differentiate themselves by their economic tastes and consumption patterns. Accordingly, our general hypothesis states that *the classes of the high- and low-grade social and cultural specialists differentiate themselves from classes of the high- and low-grade technocrats by being relatively more progressive in their socio-political, cultural and economic preferences and behaviour*.

2.3. *Social Class and Education*

A long series of studies have however shown the impact of education on shaping people's political beliefs (Feldman and Newcomb, 1969; Hyman and Wright, 1979; Newcomb, 1943). Scholars discriminate two kinds of educational effects: those of level of education and those of field of study. Sociological research has shown the importance of the level of education as well as the field of study on determining people's value orientation. Especially in universities, students develop their own ideas (Baer and Lambert, 1982). It is also repeatedly shown that the field of study affects and shapes values, attitudes and behaviour (Crotty, 1967; Guimond et al., 1989; van de Werfhorst, 2001). For instance, Guimond et al. (1989) showed that social science students are less likely than students in science or administration to blame the unemployed for their plight. Van de Werfhorst (2001) examined the relation between four kinds of educational resources and economic,

social and cultural outcomes. He differentiated communicative, cultural, economic, and technical educational resources. It turned out that economic educational resources have a positive impact on higher wages in economically oriented jobs while communicative and technical resources lead to higher wages in matching jobs.

The newly distinguished social classes within the service class partly cover differences in the level of education as well as differences in the educational resources van de Werfhorst (2001) distinguished in his work. Therefore, one should take these and other factors that are causally prior to education and social class into account to reveal the net differences between the newly distinguished social classes and socio-political, cultural and economic preferences and behaviour. Brint (1984), for example, claimed that differences between the 'new' and 'old' factions within the middle class are related to the differences in the level of education and not to differences in social class. In order to understand the relation between social class and attitudes, behaviour and different lifestyle forms, one should also take into account the level of education. This is important since there is a higher–lower distinction within the service class. One should also count for the resources that are gained in different fields of study because one of the criteria to distinguish the social and cultural specialists from others is about the knowledge and skills the members of these occupations have. Moreover, the social and cultural specialists are assumed to have relatively more social-cultural knowledge than the incumbents of other occupations within the service class have. This kind of knowledge is obtained in certain kinds of fields of education. The importance of education may be illustrated by the fact that post-materialists are more left-wing (Inglehart, 1971), while post-materialist values appear to be stable (de Graaf et al., 1989) and they are especially shaped by education (de Graaf and Evans, 1996). Consequently, the hypothesis states that *the high- and low-grade social and cultural specialists differentiate themselves from the high- and low-grade technocrats by being relatively more progressive in their socia-political, cultural and economic preferences even if one takes into account field of study, level of education and other individual and background factors.*

The specific expectations derived from the general hypothesis about socio-political, cultural and economic preferences and behaviour of the social and cultural specialists and the technocrats are formulated here per issue.

- We argue that the social and cultural specialists are mostly employed in the public sector. To increase the quality of their work circumstances in the public sector, the social and cultural specialists are more likely to

support left-wing politics because the left-wing political parties are proponents of a big public sector (Güveli et al., 2005). Therefore, we expect the high- and low-grade social and cultural specialists to vote more for left-wing political parties than the high- and low-grade technocrats.

- The technocrats are mostly the controllers of the social and cultural specialists. It is therefore likely that the social and cultural specialists' subjective class identification is lower than the technocrats. Therefore, we expect the high- and low-grade social and cultural specialists to be more likely to identify themselves with lower social classes than the high- and low-grade technocrats.
- According to Bourdieu (1984), the social and cultural specialists are more progressive than the technocrats. Therefore, we expect the high- and low-grade social and cultural specialists to be more likely being proponents of a multi-cultural society and a society with equal rights and opportunities for men and women. Hence, the high- and low-grade social and cultural specialists are more likely to have tolerant attitudes towards ethnic minorities and to have equal gender-role attitudes than the high- and low-grade technocrats.

In accordance with our general hypothesis derived from Bourdieu's (1984) theory, we suggest that the social and cultural specialists differ from the technocrats with respect to cultural preferences. We expect that:

- The high- and low-grade social and cultural specialists have knowledge on social and cultural issues such as literary, historical, and artistic knowledge. They need this kind of knowledge to perform their job well. People having this kind of knowledge are more likely to enjoy reading literature than people who do not, or do have it to a lesser extent. Therefore, we expect the social and cultural specialists to read more literature than the high- and low-grade technocrats.
- The high- and low-grade social and cultural specialists are expected to be more likely to visit museums, architectural buildings, operas and possess modern artistic objects than the high- and low-grade technocrats because the former have more knowledge to enjoy from these leisure activities and objects than the latter. Visiting museums, architectural buildings, operas and possessing these kinds of objects differentiate the social and cultural specialists from other class members (Bourdieu, 1984).

With respect to economic preferences and behaviour, we expect the following:

- The high- and low-grade social and cultural specialists have relatively less income than the high- and low-grade technocrats because the former serve people's basic needs and their occupations are therefore not profit-oriented occupations.
- The high- and low-grade social and cultural specialists are more likely to work part-time than the high- and low-grade technocrats because the social and cultural occupations are more suited for part-time work, they have flexible working hours.
- The high- and low-grade technocrats are more likely to possess classical art and antiques than the high- and low-grade social and cultural specialists. The technocrats do not have the knowledge to enjoy highbrow Culture for which one needs social-cultural knowledge to be able to appreciate the consumption. Therefore, the technocrats choose to possess expensive objects to differentiate themselves from other class members (Bourdieu, 1984).

3. DATA AND OPERATIONALISATION

The data used for this analysis come from the Family Survey of the Dutch Population (FSDP, 1992, 1998, 2000, 2003). These surveys contain information about the life course and life situation of non-institutionalised, Dutch-speaking population of the Netherlands between ages 18 and 70. For this analysis we selected those respondent who finished their full-time education. Primary respondents and, if married or cohabiting, their partners were interviewed with the same structured questionnaires: one oral interview and a self-administrated questionnaire. The four FSDP datasets are merged because most of the information we use here is available in all of these surveys. Below, we describe in which surveys the dependent variables are available.

3.1. *Independent Variables*

3.1.1. *Social Class*. Occupations of the 'new' and 'old' social classes were identified based on the four-digit occupational classification of the Dutch Central Bureau of Statistics (CBS, 1984). Four social classes within the service class of the EGP class schema are distinguished: An occupational segment of technocrats and an occupational segment of social and cultural specialists. This distinction is based on two criteria: (1) difficulty in controllability of the employees by the employer and (2) the social and cultural skills needed to perform the occupational task well. The second criterion has two components: performers of an occupation have social-cultural

specialized knowledge and/or performers of an occupation give social services (for more details, see Güveli et al., 2005).

In order to gain a relative objective classification, twelve experts on Dutch job and labour markets were asked to allocate the service class occupations into a class of technocrats and a class of social and cultural specialists on the basis of the criteria. The experts were presented with 295 descriptions of detailed occupations derived from the Standard Classification of Occupations 1984 of Statistics Netherlands. They gave the score 1 for occupations they considered as technocratic and the score 2 for occupations they considered as social and cultural specialist. The experts agreed strongly with each other; the KR20 reliability coefficient[1] is 0.95. The experts classified 55 per cent of occupations in perfect agreement and 70 per cent of occupations fall between the average expert score of 1.3 and 1.7 margins. The remaining occupations (21.3 per cent of the total), about which the experts more strongly disagreed, were allocated by the author in consultation with some of the experts.

Finally, there are eight social classes within the EGP class schema: (1) high-grade technocrats (Ia); (2) high-grade social and cultural specialists (Ib); (3) low-grade technocrats (IIa); (4) low-grade social and cultural specialists (IIb); (5) routine non-manual employees (III); (6) self-employed persons (IV), (7) skilled manual workers (V/VI) and (8) semi and unskilled manual workers (VII). In Table I, the classes in the standard and adjusted EGP class schema is shown with some examples of the occupations within the classes. Classes III, IV, V/VI and VII are identified with the conversion tools by Ganzeboom et al. (1989).

3.1.2. *Field of Education*. The classification that is constructed by van de Werfhorst and Kraaykamp (2000, 2001) will be used in this study for identifying educational resources. In this classification, the fields of studies are matched with the educational resources gained in these fields. It calculates scores for respondents' field of education; a field of education gets a high score for, for example, the communicative educational resources when much importance is paid for these skills in respondents' field of study. There are 11 fields of studies: (1) general, (2) education, (3) humanities/arts, (4) agriculture, (5) technical, mathematics/physics, transport, (6) (para) medical, (7) economic/administrative, (8) juridical/ managerial, (9) social-cultural, (10) personal or social care and (11) order and security (army, police). Finally, there are four scales for the educational resources that are controlled for: *the communicative*, *cultural*, *economic* and *technical educational*

TABLE I

The standard EGP class schema, the adjusted EGP class schema, class name and some examples of occupations within these classes

EGP	Adjusted EGP	Class name	Occupations
I	Ia	High-grade technocrats	Managers of big firms, governmental and non-governmental administrators, physical scientists, etc.
	Ib	High-grade social and cultural specialists	Medical doctors, dentists, university teachers, social scientists high church officers etc.
II	IIa	Low-grade technocrats	Managers of small firms, engineers, computer programmers, etc.
	IIb	Low-grade social and cultural specialists	Medical assistants, professional nurses, teachers, artists, etc.
III	III	Routine non-manual employees	Routine non-manual employees in administration and commerce, rank and file service workers, personal service workers
IV	IV	Self-employed persons	Small proprietors with and without employees and farmers
V/VI	V/VI	Skilled manual workers	Lower-grade technicians, supervisors of manual workers, skilled manual workers
VII	VII	Semi- and unskilled manual workers	Semi- and unskilled manual workers, farm labourers

resources. Appendix A shows the recoding of the field of education into four different educational resources scales.

Figure 1 shows the share of people who are educated in a particular field of study and who ended up in a social class according to their occupational characteristics. Thirty-six per cent of the high-grade technocrats were educated in technical educational fields, 20 per cent of them were educated in economic and commercial educational fields and 18 per cent have done so in general educational fields. Thirty-seven per cent of the high-grade social and cultural specialists come from medical educational fields and 19 per cent were educated in law. Thirty-one per cent of the low-grade technocrats were educated in technical educational fields, 23 per cent of them come from economic educational studies while 19 per cent of them were educated in general fields. Thirty-seven per cent of the low-grade social and cultural specialists originate from educational studies, 14 per cent come from social-cultural educational studies and 11 per cent of them were educated in medical educational fields. These results show that the social and cultural specialists are mostly educated in medical, educational and socio-cultural

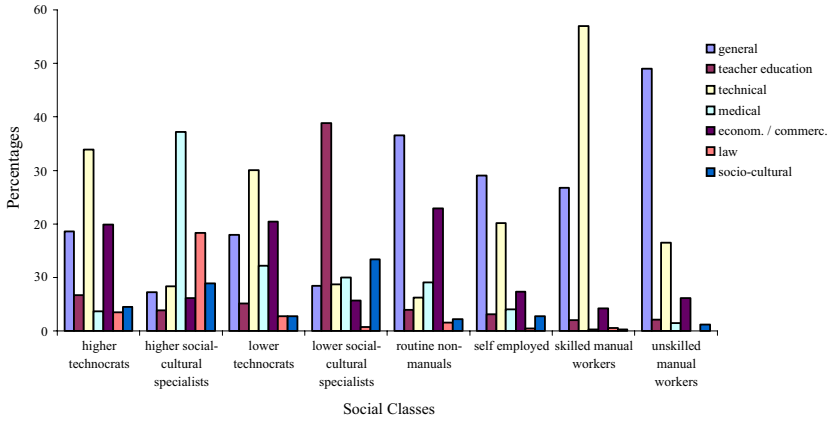

Fig. 1. Class members with a particular field of study ending up in a particular social class (not all field of studies are shown).

fields whereas the technocrats are mostly educated in technical, commercial and general fields of study.

3.1.3. *Level of Education*. This is operationalized in five dummies: primary, lower secondary, upper secondary, tertiary (vocational college), and (post-) university education. *Sex* is included in the models and is coded as (1) for women and (0) for men. We also controlled for *age* and it is reduced by 18 to interpret the regression-coefficients easily. According to Scheepers and van der Slik (1998), religious people are more conservative with respect to social and cultural values. Therefore, we include *church attendance* to control for the relation between social class and people's socio-political preferences and behaviour. Respondents are asked how many times they visit the church or meetings of their religious community. The answer categories are: (1) never, (2) one or two times a year, (3) one time per month, and (4) one or more times per week. The *sector of employment* is included in the models: (0) people who are self employed or who are employed in the private and (1) people who are employed in the public sector.

We control respondents' voting behaviour for their *fathers' voting behaviour* when the respondents were 15 years old because fathers' political orientation has an affect on children's voting behaviour (de Graaf et al., 1995; Need, 1997). Fathers' voting behaviour is coded as: (0) father voted for right-wing political parties and (1) father voted for left-wing political parties. *Parental educational level* is operationalized with parents' highest

educational level to control for parental background. This variable is coded in the same way as respondent's educational level. *Father's social-economic status* constructed by Ganzeboom et al. (1992) is also included in the models where it is expected to affect the dependent variables.[2]

3.2. *Dependent Variables*

3.2.1. *Socio-Political Preferences and Behaviour*. We analyse 11 outcome variables: four variables about socio-political preferences and behaviour, three variables about cultural preferences and behaviour and four variables about economic preferences and behaviour. The four dependent variables on socio-political preferences and behaviour are *voting for left-wing political parties*, *subjective class identification, tolerant attitudes towards ethnic minorities* and *equal gender-role attitudes*. The political party that respondents would vote for if there were elections tomorrow is asked in all surveys (1992, 1998, 2000 and 2003). To construct the variable *voting left-wing political parties* the left-wing parties (Groen-links (Green Left), PvdA (Labour Party) and D66 (Democrats 66)) are coded as (1) and the right-wing parties (VVD (Liberal Party), CDA (Christian Democratic Appeal), SGP (Political Reformed Party), GPV (Reformed Political Union), RPF (Reformed Political Federation), CD (Centrum Democrats), Christian Union, Seniors Party and LPF (List Pim Fortuyn)) as (0). Most of the left-wing parties are defined on the basis of the classification of Mackie and Rose (1991).

To operationalize the dependent variable *subjective class identification*, respondents are asked to place themselves on the social ladder scoring from (1) on the bottom of the social ladder and (10) on the top of the social ladder. This question is asked in the FSDP (1998, 2000).

Tolerant attitudes towards ethnic minorities are measured with the following question: Most Muslims cling to their own culture convulsively. Respondents had to indicate to what extent they agree with this statement. The item is formulated negatively; subscribing to this view expresses an intolerant attitude. To better interpret the results, this question was recoded in such a way that high scores (5) express a tolerant attitude and a low score (1) express an intolerant attitude. This item is asked in the FSDP (2003).

Four items about *equal gender-role attitudes* are asked in the FSDP of 1992 and 1998. Hence we use the following items to construct this variable: (1) 'A woman is better suited for raising young children than a man'; (2) 'If a man thinks his wife should not work, she has to accept that'; (3) 'Women with children should only look for paid work if they are certain they still

have enough time left for their children'; (4) 'A mother should be at home when her children return from school'. All of these items are about participation of women in employment. Respondents had to indicate to what extent they agree with these statements. All items are formulated negatively; respondents who agree with these statements express an unequal gender-role attitude. These items are recoded in such a way that a high score means an equal gender-role attitude. Cronbach's alpha for this scale is 0.76. The mean of the four items is taken, ranging between 1 and 5.

3.2.2. *Cultural Preferences and Behaviour*. The cultural outcome variables are: *reading literature*, *visiting museums, opera's and classical concerts* and *modern art possession*. *Reading literature* (Dutch literary novels, translated foreign literature and literature in English, French or German) is asked in all of the FSDP's. The Cronbach's alpha for this scale is 0.72. The answer categories on reading literature are: never, sometimes and often. The mean of these variables is taken, ranging from 1 to 3.

Questions to measure *visit to museums, operas and classical concerts* (historical museums, art museums, classical theatres, opera and architectural buildings) are asked in FSDP 1998 and 2000. Cronbach's alpha for this scale is 0.80. The answer categories on visiting museums, operas and classical concerts are: (1) never, (2) between 1 and 3 times a year, (3) between 4 and 6 times a year and (4) more than 6 times a year. The mean of these variables is taken, ranging from 1 to 4. Furthermore, the dependent variable *modern art possession* (from after 1900) is coded (1) do not possess modern art and (2) possess modern art. Information about this variable is available in FSDP (1998, 2000, 2003).

3.2.3. *Economic Preferences and Behaviour*. We also try to reveal whether the social and cultural specialists differ from the technocrats on economic outcomes like *income*, *working part-time*, *classic art possession* and *antique possession*. The *income* variable is constructed with the monthly income of employed people plus the twelfth of thirteenth month income, bonus and profit sharing. To obtain a normal distributed variable, monthly income is transformed into a tenth base of logarithm. Information about monthly income is available in FSDP (1998, 2000, 2003). The dependent variable *working full-time* is constructed by grouping people who work more than 32 h per week and coding them as (0) while people working less than 33 h per week are considered as working part-time and they are coded as (1). Information about how many hours respondents work per week is available in all surveys. *Classic art possession* (from before 1900) and *antique possession* can

be regarded as valuable goods; therefore they can be considered as indicators of status symbols for economic elites. Respondents who possess classic art are coded as (1) do not posses classic art and (2) possess classic art. Respondents who possess antique are coded as (1) do not posses antique and (2) possess antique. Information about monthly income, classical art possession and antique possession is available in FSDP (1998, 2000, 2003). Descriptions of all variables and survey years containing these variables are shown in Appendix B.

4. RESULTS

For each dependent variable, three models were applied. In the first model, the class coefficients are estimated for all dependent variables to reveal the differences between the high-grade technocrats and the high- and low-grade social and cultural specialists. In the second model, communicative, cultural, economic and technical educational resources and the level of education are included in the model to examine whether these resources explain the differences between the social classes.[3] Finally, in the third model, respondent's age, sex and parental educational level are included in the analysis as control variables.[4] In this model, it is additionally controlled for more individual and background factors that are causally prior to education and social class and that are supposed to be relevant for revealing the net differences between the newly distinguished social classes. The dependent variables of *subjective class identification*, *tolerant attitudes towards ethnic minorities*, *equal gender-role attitudes*, *reading literature*, *visiting museums, operas and classical concerts* and *log10 monthly income* are analysed with OLS regression. The dependent variables of *voting left-wing political parties*, *modern art possession*, *working part-time*, *classical art possession* and *antique possession* are analysed with logistic regression because the categories of these variables are dichotomous.

4.1. *Socio-Political Preferences and Behaviour*

Table II reveals the differences between the high- and low-grade social and cultural specialists and the high- and low-grade technocrats regarding their socio-political preferences and behaviour. Model I of *voting for left-wing political parties* shows that members of all social classes vote significantly more for left-wing political parties than the high-grade technocrats. The high- and low-grade social and cultural specialists are the most leftist classes. Model II shows that people with communicative educational resources are significantly more likely to vote for left-wing political parties whereas

TABLE II

OLS or logistic regression, differences in socio-political preferences and behaviour between the high- and low-grade social and cultural specialists and the high- and low-grade technocrats (standard errors in parentheses)

	Voting left-wing political parties[L]			Subjective class identification[O]		
	I	II	III	I	II	III
Constant	−0.33 (.08)	−0.31 (.45)	−0.20 (.58)	7.01 (.08)	7.26 (.40)	7.50 (.43)
Higher technocrats	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Higher social and cultural specialists	0.93 (.18)**	0.66 (.20)**	0.63 (.23)**	0.48 (.17)**	0.19 (.17)	0.22 (.17)
Lower technocrats	0.30 (.11)**	0.32 (.11)**	0.34 (.14)*	−0.14 (.10)	−0.12 (.10)	−0.08 (.10)
Lower social and cultural specialists	0.95 (.12)**	0.63 (.13)**	0.67 (.15)**	−0.15 (.10)	−0.21 (.11)~	−0.16 (.11)
Routine non-manual employees	0.26 (.10)*	0.33 (.11)**	0.47 (.13)**	−0.74 (.09)**	−0.69 (.11)**	−0.37 (.10)~
Self-employed persons	0.17 (.13)	0.25 (.13)~	0.13 (.17)	−1.06 (.11)**	−0.67 (.11)**	−0.67 (.12)
Skilled manual workers	0.39 (.12)**	0.53 (.13)**	0.69 (.16)**	−0.99 (.11)**	−0.82 (.12)**	−0.73 (.11)~
Unskilled manual workers	0.44 (.11)**	0.51 (.12)**	0.68 (.16)**	−1.35) (.10)**	−0.84 (.11)**	−0.81 (.11)
Communicative educational resources		0.28 (.08)**	0.23 (.09)*		0.13 (.07)~	−0.12 (.07)
Cultural educational recourses		−0.01 (.08)	0.05 (.09)		−0.03 (.07)	0.01 (.07)~
Economic educational resources		−0.25 (.06)**	−0.24 (.07)**		0.01 (.05)	−0.02 (.05)*
Technical educational resources		−0.01 (.06)	0.06 (.08)		0.07 (.05)	0.05 (.06)
Primary education		0.03 (.28)	−0.28 (.35)		−1.06 (.25)**	−0.99 (.26)**
Low secondary education		−0.27 (.10)**	−0.49 (.18)**		0.75 (.09)**	−0.66 (.10)**
High secondary education		−0.19 (.09)*	−0.37 (.10)**		−0.42 (.08)**	−0.35 (.08)**
Tertiary education		Ref.	Ref.		Ref.	Ref.
(Post-)university education		0.17 (.12)	0.28 (.14)*		0.38 (.10)**	0.31 (.11)**
Age			−0.01 (.01)			0.00 (.00)
Female			0.17 (.08)*			−0.09 (.06)
Public sector			0.40 (.08)			
Church attendance			−0.51 (.03)**			

TABLE II
Continued

	Voting left-wing political parties[L]			Subjective class identification[O]		
	I	II	III	I	II	III
Father's voting behaviour			1.31 (.07)**			
Parent's primary education			0.19 (.13)			−0.23 (.10)*
Parent's low secondary education			0.13 (.12)			−0.17 (.10)~
Parent's high secondary education			0.06 (.13)			−0.02 (.10)
Parent's tertiary education			Ref.			Ref.
Parent's (post-) university education			0.05 (.19)			0.36 (.12)*
Adjusted R^2 / Nagelkerke's R^2	0.02	0.04	0.28	0.11	0.16	0.17
N	5579	5534	4643	3152	3125	2965
	Tolerant attitudes towards ethnic minorities[O]			Equal gender-role attitudes[O]		
	I	II	III	I	II	III
Constant	2.21 (.07)	2.20 (.35)	2.26 (.29)	3.23 (.05)	3.67 (.26)**	4.04 (.26)
Higher technocrats	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Higher social and cultural specialists	0.47 (.16)**	0.33 (.16)*	−0.30 (.13)~	0.58 (.10)**	0.33 (.11)**	0.23 (.11)*
Lower technocrats	0.01 (.09)	0.14 (.09)	0.13 (.09)	0.13 (.07)~	0.16 (.07)**	0.11 (.07)
Lower social and cultural specialists	0.35 (.10)**	0.24 (.10)*	0.23 (.10)*	0.46 (.07)**	0.26 (.08)**	0.24 (.08)**
Routine non-manual employees	0.01 (.08)	0.17 (.08)	0.14 (.09)	0.04 (.07)	0.12 (.07)	−0.01 (.07)
Self-employed persons	0.01 (.10)	0.22 (.11)	0.17 (.11)	−0.12 (.08)	0.04 (.08)	−0.01 (.08)
Skilled manual workers	−0.15 (.09)	0.01 (.10)	0.01 (.09)	−0.31 (.08)**	−0.06 (.08)	−0.12 (.08)
Unskilled manual workers	−0.24 (.09)**	−0.03 (.10)	0.03 (.10)	−0.37 (.07)**	−0.11 (.08)	−0.18 (.07)*
Communicative educational resources		0.01 (.05)	0.02 (.06)		0.09 (.04)	0.09 (.04)*
Cultural educational recourses		0.01 (.06)	0.05 (.06)		−0.06 (.04)	−0.02 (.04)

TABLE II
Continued

	Tolerant attitudes towards ethnic minorities[O]			Equal gender-role altitudes[O]		
	I	II	III	I	II	III
Economic educational resources		−0.02 (.04)	−0.03 (.04)		−0.06 (.03)~	−0.03 (.03)
Technical educational resources		−0.04 (.05)	−0.03 (.05)*		−0.12 (.03)**	−0.05 (.03)
Primary education		−0.35 (.22)	−0.37 (.23)		−0.78 (.16)**	−0.40 (.16)*
Low secondary education		−0.28 (.08)**	−0.31 (.08)**		−0.38 (.06)**	−0.23 (.06)**
High secondary education		−0.15 (.07)*	−0.18 (.07)**		−0.17 (.05)**	−0.17 (.05)**
Tertiary education		Ref.	Ref.		Ref.	Ref.
(Post-)university education		0.18 (.09)~	0.19 (.09) *		0.10 (.07)~	0.11 (.07)~
Age			0.03 (.01)*			−0.01 (.00)**
Female			0.01 (.04)			0.17 (.03)**
Church attendance			0.03 (.02)~			−0.14 (.01)**
Parent's primary education			−0.03 (.07)			−0.27 (.06)**
Parent's low secondary education			0.03 (.08)			−0.15 (.06)**
Parent's high secondary education			−0.06 (.06)			−0.01 (.06)
Parent's tertiary education			Ref.			Ref.
Parent's (post-) university education			0.11 (.12)			−0.13 (.09)
Adjusted R^2 / Nagelkerke's R^2	0.03	0.06	0.07	0.09	0.13	0.22
N	2046	2033	1888	3188	3152	3028

~Significant ($P < 0.1$). *Significant ($P < 0.05$). **Significant ($P < 0.01$). [O] OLS regression analysis. [L] Logistic regression analysis.

people with economic educational resources are significantly less likely to do so. Cultural and technical educational resources have no significant direct effect on voting behaviour. People with a low and high secondary education are significantly less likely to vote for left-wing parties than people with a tertiary education. The educational resources explain a part of the differences between the newly distinguished classes.

In Model III, the background variables (age, sex, sector of employment, church attendance and father's left-wing voting behaviour, parental educational level) are added to Model II. None of these independent variables can fully explain the differences in voting behaviour between the high-grade technocrats and the high- and low-grade social and cultural specialists. In a less refined classification, the high- and low-grade social and cultural specialists vote significantly more for left-wing political parties than the high- and low-grade technocrats even after controlling for educational resources (van de Werfhorst and de Graaf, 2004). The refined classification of the subdivision of the service class used in this study supports this finding.

The expectation about *subjective class identification* is that the high- and low-grade social and cultural specialists are more likely to rank themselves relatively low on the social ladder compared to the high- and low-grade technocrats. Model I of this dependent variable shows that the high- and low-grade technocrats and the low-grade social and cultural specialists do not differ in subjective class identification. The high-grade social and cultural specialists rank themselves significantly higher than the high-grade technocrats. This contradicts our expectation. The routine non-manual employees, self-employed persons, skilled and unskilled manual workers rank themselves significantly lower on the social ladder than the high-grade technocrats. Model II shows that the differences between the high-grade technocrats and other service class members are fully explained by the level of education: the higher people are educated the higher they rank themselves on the social ladder.

Tolerant attitudes towards ethnic minorities is another dependent variable regarding socio-political preferences and behaviour. Our expectation is that the high- and low-grade social and cultural specialists are more tolerant towards ethnic minorities than the high- and low-grade technocrats. Model I of the variable tolerant attitudes towards ethnic minorities in Table II shows that indeed the high- and low-grade social and cultural specialists are significantly more tolerant towards ethnic minorities than the high-technocrats. However, the educational resources in Model II explain a part of these differences. Only people with a low and high secondary education are significantly less tolerant towards ethnic minorities than people with a tertiary

education. Even after controlling for educational and background factors in Model III, the low-grade social and cultural specialists remain significantly more tolerant towards ethnic minorities than the high-grade social and cultural specialists.

We expect the high- and low-grade social and cultural specialists to have more equal gender-role attitudes than the high- and low-grade technocrats. *Equal gender-role attitudes* are related to social class position. Model I of this dependent variable shows that the high- and low-grade social and cultural specialists have significantly more equal gender-role attitudes than the high-grade technocrats while Model II shows that these differences cannot fully be explained by having different type of educational resources and level of education. People with technical educational resources have significantly less equal gender-role attitudes and people with a primary, low and high secondary education have significantly less equal gender-role attitudes than people with a tertiary education. The background variables (age, sex, church attendance and parental educational level) cannot explain the differences between the high-grade technocrats and the high- and low-grade social and cultural specialists too. Clearly, these differences are related to differences in social class positions. Van de Werfhorst and de Graaf (2004) have however found that the educational resources fully explain the differences between the newly distinguished social classes regarding equal gender-role attitudes with the same data. This implies that the refined classification of the service class used in this study is better in revealing the class differences than the classification of van de Werfhorst and de Graaf (2004).

4.2. *Cultural Preferences and Behaviour*

Our expectation is that the high- and low-grade social and cultural specialists read more literature, visit more museums, operas and classical concerts and possess more modern art than the high- and low-grade technocrats. Table III shows the differences in cultural preferences and behaviour between the high- and low-grade social and cultural specialists and the high-grade technocrats. Model I of *reading literature* of Table III shows that only the high- and low-grade social and cultural specialists read significantly more literature than the high-grade technocrats. All members of other social classes read significantly less literature than the high-grade technocrats. Including the educational resources and the level of education in the model (Model II) fully explains the differences between the low-grade social and cultural specialists and the high-grade technocrats. People with cultural educational resources and people with higher educational level read

TABLE III

OLS or logistic regression, differences in cultural preferences and behaviour between the high- and low-grade social and cultural specialists and the high- and low-grade technocrats (standard errors in parentheses)

	Reading literature[O]			Visiting museums, operas and classical concerts[O]			Modern art possession[L]		
	I	II	III	I	II	III	I	II	III
Constant	1.77	1.64	1.47	1.72	1.38	1.20	−0.26	−0.03	−0.90
	(.02)	(.11)	(.11)	(.03)	(.13)	(.13)	(.11)	(.48)	(.54)
Higher technocrats	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Higher social and cultural specialists	0.21**	0.07	0.07	0.19**	−0.02	−0.01	0.62**	0.32	0.36
	(.04)	(.05)	(.05)	(.06)	(.06)	(.06)	(.20)	(.21)	(.22)
Lower technocrats	−0.06*	−0.02	−0.01	−0.05	−0.06	−0.03	−0.16	−0.12	−0.04
	(.03)	(.03)	(.03)	(.04)	(.03)~	(.03)	(.13)	(.13)	(.14)
Lower social and cultural specialists	0.15**	0.06	0.04	0.18**	0.04	0.03	0.05	−0.00	0.05
	(.03)	(.03)~	(.03)	(.04)	(.04)	(.04)	(.13)	(.13)	(.15)
Routine non−manual employees	−0.13**	−0.02	−0.03	−0.18**	−0.08*	−0.08*	−0.44**	−0.23	−0.11
	(.03)	(.03)	(.03)	(.03)	(.03)	(.03)	(.12)	(.13)~	(.13)
Self−employed persons	−0.26**	−0.12**	−0.13**	−0.27**	−0.14**	−0.13**	−0.21	−0.03	0.08
	(.03)	(.04)	(.04)	(.04)	(.04)	(.04)	(.15)~	(.15)	(.16)
Skilled manual workers	−0.32**	−0.15 (.03)**	−0.10**	−0.37**	−0.21**	−0.16**	−0.51**	−0.34*	−0.18
	(.03)		(.04)	(.04)	(.04)	(.04)	(.14)	(.15)	(.15)
Unskilled manual workers	−0.30**	−0.12**	−0.09**	−0.43**	−0.26**	−0.22**	−0.42*	−0.21	−0.06
	(.03)	(.03)	(.03)	(.04)	(.04)	(.04)	(.13)	(.14)	(.09)
Communicative educational resources		0.01	0.01		0.07**	0.06**		0.08	−0.08
		(.02)	(.02)		(.02)	(.02)		(.08)	(.09)
Cultural educational recourses		0.09**	0.09**		0.13	0.11**		−0.06	0.05
		(.02)	(.02)		(.02)**	(.02)		(.08)	(.09)

TABLE III
Continued

	Reading literature[O]			Visiting museums, operas and classical concerts[O]			Modern art possession[L]		
	I	II	III	I	II	III	I	II	III
Economic educational resources		−0.02 (.01)	−0.00 (.01)		−0.03 (.02)~	−0.02 (.02)		−0.12 (.06)~	−0.11 (.06)
Technical educational resources		0.00 (.01)	0.02 (.02)		0.02 (.02)	0.03 (.02)~		0.07 (.06)	0.06 (.07)
Primary education		−0.19** (.07)	−0.15* (.07)		−0.12 (.08)	−0.17* (.08)		−0.27 (.30)	−0.36 (.32)
Low secondary education		−0.27** (.02)	−0.26** (.03)		−0.30 (.03)**	−0.30** (.03)		−0.44** (.11)	−0.48** (.12)
High secondary education		−0.15** (.02)	−0.13** (.03)		−0.25** (.03)	−0.21** (.02)		−0.28** (.09)	−0.28** (.10)
Tertiary education		Ref.	Ref.		Ref.	Ref.		Ref.	Ref.
(Post-)university education		0.17** (.03)	0.19** (.02)		0.11** (.03)	0.11** (.03)		0.52** (.12)	0.49** (.13)
Age			0.01** (.00)			0.01** (.00)			0.01** (.00)
Female			0.10** (.02)			0.08 (.02)**			−0.02 (.08)
Parent's primary education			−0.19** (.02)			−0.22** (.03)			0.12 (.13)
Parent's low secondary education			−0.12** (.02)			−0.16** (.03)			0.15 (.12)
Parent's high secondary education			−0.05* (.03)			−0.07* (.03)			0.19 (.12)

TABLE III
Continued

	Reading literature[O]			Visiting museums, operas and classical concerts[O]			Modern art possession[L]		
	I	II	III	I	II	III	I	II	III
Parent's tertiary education			Ref.			Ref.			Ref.
Parent's (post-) university education			0.08* (.04)			0.02 (.04)			0.18 (.17)
Father's social-economic status									0.01** (.00)
Adjusted R2 / Nagelkerke's R2	0.09	0.14	0.17	0.14	0.23	0.29	0.02	0.04	0.05
N	5407	5364	5134	3199	3171	3065	5241	5201	4844

~Significant ($P < 0.1$). *Significant ($P < 0.05$). **Significant ($P < 0.01$). [O] OLS regression analysis. [L] Logistic regression analysis.

significantly more literature. Thus variation in *reading literature* is related to educational differences and not to social class positions.

Model I of *visiting museums, operas and classical concerts* (Table III) shows that only the high- and low-grade social and cultural specialists visit significantly more museums, operas and classical concerts than the high-grade technocrats. However, including the educational resources and the level of education in the model (Model II) explains these differences fully. People with communicative and cultural educational resources visit significantly more museums, operas and classical concerts. People with a low and high secondary education visit significantly less museums, operas and classical concerts while people with a (post-) university education visit them significantly more than people with a tertiary education.

Model I of the dependent variable *modern art possession* of Table III shows that only the high-grade social and cultural specialists possess significantly more modern art than the high-grade technocrats while the low-grade social and cultural specialists do not differ significantly from the high-grade technocrats. Including the educational resources and the level of education in the model (Model II) explains the differences between the social classes within the service class fully. People with a low and high secondary education are significantly less likely to own modern art whereas people with a (post-)university education are significantly more likely to own modern art. All in all, there are differences in cultural expressions between the members of social classes but none of these differences are related to differences in social class positions but rather to educational differences.

4.3. *Economic Preferences and Behaviour*

Table IV shows the differences in economic preferences and behaviour between the high- and low-grade technocrats and the high- and low-grade social and cultural specialists. All social classes earn significantly less than the high-grade technocrats according to Model I of the outcome variable *income*. Including educational resources and the level of education in the model (Model II) reduces the differences but do not explain them fully. Communicative educational resources have a negative significant effect on income while the cultural, economic and technical educational resources have a positive effect on income. People with a primary education and a (post-) university education earn significantly more than people with a tertiary education. Including the individual variables (age, sex, parental educational level and father's socio-economic status) in the model (Model III) does not fully explain the differences in income between social class

TABLE IV

OLS or logistic regression, differences in economic preferences and behaviour between the high- and low-grade social and cultural specialists and the high- and low-grade technocrats (standard errors in parentheses)

	Log10 monthly income^{O}			Working part-time^{L}		
	I	II	III	I	II	III
Constant	3.32 (.01)	2.84 (.07)	3.16 (.07)	−1.68 (.16)	3.23 (.61)	-0.09 (.77)
Higher technocrats	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Higher social and cultural specialists	−0.12** (.03)	−0.10** (.03)	−0.06** (.02)	1.19** (.24)	0.69** (.26)	0.35 (.31)
Lower technocrats	−0.09** (.02)	−0.06** (.02)	−0.05** (.01)	0.20 (.19)	0.07 (.20)	0.15 (.24)
Lower social and cultural specialists	−0.20** (.02)	−0.14** (.02)	−0.09** (.02)	1.90** (.18)	1.29** (.20)	1.11** (.24)
Routine non-manual employees	−0.33** (.02)	−0.23** (.02)	−0.13** (.02)	1.88** (.17)	1.41** (.18)	0.82** (.22)
Self-employed persons	−0.36** (.02)	−0.25** (.02)	−0.21** (.02)	1.34** (.20)	1.06** (.22)	1.04** (.26)
Skilled manual workers	−0.17** (.02)	−0.12** (.02)	−0.13** (.02)	−0.91** (.24)	−0.74** (.26)	−0.23 (.31)
Unskilled manual workers	−0.35** (.02)	−0.24** (.02)	−0.20** (.02)	1.36** (.18)	1.03** (.20)	1.02** (.26)
Communicative educational resources		−0.02* (.01)	−0.01 (.01)		0.33** (.10)	0.12 (.12)
Cultural educational recourses		0.06** (.01)	0.01 (.01)		−0.55** (.09)	−0.28~ (.11)
Economic educational resources		0.06** (.01)	0.03** (.01)		−0.59** (.07)	−0.37** (.09)
Technical educational resources		0.10** (.01)	0.02** (.01)		−1.35** (.09)	−0.67** (.12)
Primary education		0.18** (.04)	-0.04 (.04)		−2.43** (.37)	−1.30** (.46)
Low secondary education		−0.13** (.01)	−0.12** (.01)		0.55** (.15)	0.19 (.19)
High secondary education		−0.09** (.01)	−0.08** (.01)		0.33** (.12)	0.29* (.14)
Tertiary education		Ref.	Ref.		Ref.	Ref.
(Post-)university education		0.09** (.02)	0.07** (.01)		−0.18 (.16)	0.04 (.19)
Age			0.01** (.00)			0.03** (.01)
Female			−0.24** (.01)			2.79** (.11)
Parent's primary education			−0.01 (.01)			−0.14 (.20)
Parent's low secondary education			0.01 (.01)			−0.08 (.17)

TABLE IV
Continued

	Log10 monthly income[O]			Working part-time[L]		
	I	II	III	I	II	III
Parent's high secondary education			0.00 (.01)			0.03 (.18)
Parent's tertiary education			Ref.			Ref.
Parent's (post-) university education			−0.01 (.02)			0.55* (.24)
Father's socio-economic status			0.00 (.00)			0.00 (.00)
Adjusted R^2 / Nagelkerke's R^2	0.18	0.29	0.43	0.20	0.33	0.54
N	3078	3053	2866	4047	4016	3747
	Classic art possession[L]			Antique possession[L]		
	I	II	III	I	II	III
Constant	−0.48 (.09)	−0.22 (.50)	−0.94 (.56)	−0.36 (.11)	−0.30 (.48)	−1.15 (.55)
Higher technocrats	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Higher social and cultural specialists	−0.42* (.21)	−0.56* (.23)	−0.54* (.23)	0.10 (.20)	−0.11 (.21)	−0.05 (.22)
Lower technocrats	−0.33* (.13)	−0.30* (.13)	−0.26~ (.14)	−0.16 (.13)	−0.15 (.13)	−0.10 (.14)
Lower social and cultural specialists	−0.33* (.13)	−0.39** (.14)	−0.40* (.15)	−0.17 (.13)	−0.27~ (.14)	−0.26~ (.15)
Routine non-manual employees	−0.45** (.12)	−0.42** (.13)	−0.31* (.14)	−0.36** (.12)	−0.35** (.13)	−0.26~ (.14)
Self-employed persons	−0.18 (.15)	−0.16 (.15)	0.11 (.16)	−0.26~ (.15)	−0.26~ (.15)	−0.18 (.16)
Skilled manual workers	−0.60** (.14)	−0.59** (.15)	−0.41* (.16)	−0.55** (.14)	−0.52** (.15)	−0.34* (.15)
Unskilled manual workers	−.37** (.13)	−0.38* (.14)	−0.22 (.15)	−0.37** (.13)	−0.38** (.13)	−0.21 (.15)
Communicative educational resources		0.04 (.09)	0.02 (.09)		0.02 (.08)	0.01 (.02)

Cultural educational recourses		−0.01 (.08)	−0.05 (.09)		0.06 (.08)	0.04 (.08)
Economic educational resources		−0.15* (.07)	−0.16* (.07)		−0.09 (.06)	−0.07 (.07)
Technical educational resources		0.01 (.07)	-0.01 (.08)		−0.03 (.07)	−0.01 (.07)
Primary education		−0.04 (.31)	−0.30 (.33)		0.05 (.30)	−0.13 (.32)
Low secondary education		0.04 (.11)	−0.04 (.12)		0.01 (.11)	−0.06 (.12)
High secondary education		−0.03 (.10)	0.03 (.10)		−0.02 (.09)	−0.01 (.09)
Tertiary education		Ref.	Ref.		Ref.	Ref.
(Post-)university education		0.22 (.13)	0.22 (.14)		0.34** (.13)	0.33* (.13)
Age			0.02** (.00)			0.02** (.00)
Female			0.05 (.08)			0.10 (.09)
Parent's primary education			−0.02 (.13)			0.03 (.13)
Parent's low secondary education			−0.12 (.12)			−0.12 (.12)
Parent's high secondary education			−0.20 (.13)			−0.01 (.12)
Parent's tertiary education			Ref.			Ref.
Parent's (post-) university education			−0.14 (.17)			0.04 (.17)
Father's socio-economic status			0.01** (.00)			0.01** (.00)
Adjusted R^2 / Nagelkerke's R^2	0.01	0.01	0.04	0.01	0.01	0.04
N	5222	5182	4829	5245	5204	4849

~Significant ($P < 0.1$). *Significant ($P < 0.05$). **Significant ($P < 0.01$). [L] Logistic regression analysis. [L] Logistic regression analysis.

members. Only individual factors affect income while parental level of education and father's socio-economic status do not. The low-grade social and cultural specialists earn significantly less than the low-grade technocrats (not shown here) whereas the high-grade social and cultural specialists do not significantly differ from the low-grade technocrats (not shown here).

Furthermore, Model I (Table IV) of *working part-time* shows that the high- and low-grade social and cultural specialists have significantly more a part-time job than the high-grade technocrats. The differences in having part-time job between social class members are controlled for the educational resources and the level of education in Model II. People with cultural, economic and technical educational resources and people with a primary education have significantly less a part-time job. This does not however explain the differences between the high-grade technocrats and the high- and low-grade social and cultural specialists. In Model III, the relation between social class and part-time work is controlled for age, sex, parental level of education and father's socio-economic status. This model shows that women have substantially more a part-time job than men. Model III explains the differences between the high-grade technocrats and the high-grade social and cultural specialists whereas it does not explain the differences between the high-grade technocrats and the low-grade social and cultural specialists.

Possessing classic art and antique is status symbols for economic elites (Bourdieu, 1984). As described earlier, the incumbents of the classes of the high- and low-grade technocrats represent economic elites in society. Therefore, we expect them to own relatively more classic art and antique than the high- and low-grade social and cultural specialists. Model I of *classic art possession* (Table IV) shows that all social class members own significantly less classic art than the high-grade technocrats. In Model II, these differences decrease by including the educational resources and the level of education in the model but the differences do not disappear. An interesting finding in Model II is that people with more economic educational resources possess significantly less classical art. The differences between the high- and low-grade technocrats and the high- and low-grade social and cultural specialists remain when one includes background variables (age, sex, parental level of education, father's socio-economic status) in the model (Model III): The high- and low-grade social and cultural specialists possess significantly less classic art than the high-grade technocrats while the low-grade technocrats do not differ from the high-grade technocrats significantly. This supports the expectation that class position of the social and cultural specialists is related classic art possession. Model I of *antique possession* shows that none of the classes within the service class

differ significantly regarding owning antique. Therefore, we do not pay attention to other two models of this dependent variable. All in all, it can be convincingly concluded that the high- and low-grade social and cultural specialists differ significantly from the high- and low-grade technocrats in *income*, *part-time work* and *classic art possession*.

5. CONCLUSION

Theories on post-industrial class structure suggest a division between an 'old' class of managers, business owners and industrials and a 'new' class of knowledge workers. We have distinguished two 'new' and two 'old' classes within the service class following these theories. They are respectively: the high- and low-grade social and cultural specialists and the high- and low-grade technocrats. Subsequently, according to two criteria (*controllability of employees by the employer* and *the social and cultural feature of an occupation*), experts have allocated the occupations into aforementioned 'new' and 'old' classes.

The main aim of this paper is to reveal whether the assumed 'new' and 'old' classes are different in their socio-political, cultural and economic preferences and behaviour. When they are different, are these differences attributable to people's class positions or are they explainable by people's educational resources and/or by other individual factors? Results show that the classes of the high- and low-grade social and cultural specialists differ significantly from the classes of the high- and low-grade technocrats with regard to their socio-political and economic preferences and behaviour.

With regard to cultural expressions, the social and cultural specialists do not differ from the technocrats in *reading literature*, *visiting museums, operas and classical concerts* and in *modern art possession* after controlling for the educational resources. Obviously, the cultural preferences are highly related to the educational resources and not to social class positions. However the social and cultural specialists differ substantially from the technocrats in their socio-political and economic preferences and behaviour, even if one controls for the field of study, i.e. educational resources, the level of education and other individual factors that are causally prior to education and social class. With regard to socio-political preferences and behaviour, the high- and low-grade social and cultural specialists *vote* significantly more for left-wing political parties and the low-grade social and cultural specialists differentiate themselves substantially in their *tolerant attitudes towards ethnic minorities*. The high- and low-grade social and cultural specialists have significantly

more *equal gender-role attitudes* than the high- and low-grade technocrats. Out of four types of economic preferences and behaviour, the social and cultural specialists differentiate themselves in three of these preferences from the technocrats: *income*, *part-time work* and *classic art possession*. The high- and low-grade social and cultural specialists have substantially less income and they own significantly less classic art than the high- and low-grade technocrats. The low-grade social and cultural specialists work significantly more part-time than the high- and low-grade technocrats.

Güveli et al. (2005) showed also with Dutch data that the high- and low-grade social and cultural specialists vote significantly more for left-wing political parties and the low-grade social and cultural specialists became the most leftist social class in 2000. Additionally, this study convincingly shows that the two factions, i.e. the social and cultural specialists and technocrats, within the service class differentiate themselves in their social class positions on socio-political and economic preferences and behaviour. Furthermore, this study also shows that the classification of the classes within the service class we used here is better in explaining the tolerant gender-role attitudes than the classification used by van de Werfhorst and de Graaf (2004). We therefore advice to distinguish these factions as typical social classes within the EGP class schema to correctly reflect the social class cleavages.

APPENDIX A

Recoding the Field of Study into Four Different Educational Resources Scales

		Cultural resources	Communicative resources	Economic resources	Technical resources
0	Only primary education	1	1	1	1
1	General	2.94	2.01	2.11	2.04
2	Teacher education	3.56	3.5	1.85	1.75
3	Humanities / arts	3.47	2.75	1.70	1.62
4	Agriculture	2.13	2.01	2.90	3.06
5	Technical, physics, mathematics	2.01	1.95	2.14	3.42
6	(Para)-medical	1.87	2.96	1.82	2.14
7	Economic/commercial	2.03	2.45	3.41	2.06
8	Law/managerial	2.19	2.16	3.31	1.74
9	Social-cultural	2.66	3.76	2.24	1.54
10	Personal/social care	2.40	2.26	1.82	1.52
11	Police/military	2.41	3.17	2.84	2.02

APPENDIX B

Description of All Variables

	N	Minimum	Maximum	Mean	Standard deviation	Surveys (FSDP)
Voting left-wing political party	5856	0	1	0.51	0.49	1992, 1998, 2000, 2003
Subjective class identification	3279	1	10	6.40	1.47	1998,2000
Tolerant attitudes towards ethnic minorities	2127	1	5	2.23	0.94	2003
Equal gender-role attitudes	3349	1	5	3.18	0.92	1992, 1998
Reading literature	5673	1	3	1.67	0.52	1992, 1998, 2000, 2003
Visiting museums, operas and classical concerts	3335	1	4	1.56	0.52	1998, 2000,
Modern art possession	5466	1	2	1.37	0.48	1998, 2000, 2003
Log10 monthly income	3151	2	4.72	3.09	0.27	1998, 2000, 2003
Working part-time	4131	0	1	0.37	0.48	1992, 1998, 2000, 2003
Classic art possession	3880	1	2	1.31	0.46	1998, 2000, 2003
Antique possession	3887	1	2	1.35	0.48	1998, 2000, 2003
Higher technocrats	7002	0	1	0.09	0.29	1992, 1998, 2000, 2003
Higher social and cultural specialists	7002	0	1	0.03	0.16	1992, 1998, 2000, 2003
Lower technocrats	7002	0	1	0.13	0.33	1992, 1998, 2000, 2003
Lower social and cultural specialists	7002	0	1	0.12	0.32	1992, 1998, 2000, 2003
Routine non-manual employees	7002	0	1	0.29	0.45	1992, 1998, 2000, 2003
Self-employed persons	7002	0	1	0.08	0.28	1992, 1998, 2000, 2003
Skilled manual workers	7002	0	1	0.11	0.31	1992, 1998, 2000, 2003
Semi- and unskilled manual workers	7002	0	1	0.15	0.36	1992, 1998, 2000, 2003
Communicative educational resources	7279	1	3.76	2.22	0.71	1992, 1998, 2000, 2003
Cultural educational recourses	7279	1	3.56	2.22	0.70	1992, 1998, 2000, 2003
Economic educational resources	7279	1	3.41	2.11	0.69	1992, 1998, 2000, 2003

APPENDIX B

Continued

	N	Minimum	Maximum	Mean	Standard deviation	Surveys (FSDP)
Technical educational resources	7279	1	3.42	2.11	0.78	1992, 1998, 2000, 2003
Primary education	7337	0	1	0.14	0.35	1992, 1998, 2000, 2003
Low secondary education	7337	0	1	0.27	0.44	1992, 1998, 2000, 2003
High secondary education	7337	0	1	0.31	0.46	1992, 1998, 2000, 2003
Tertiary education	7337	0	1	0.19	0.39	1992, 1998, 2000, 2003
(Post)-university education	7337	0	1	0.08	0.27	1992, 1998, 2000, 2003
Age (0–66)	7344	0	66	25.63	12.49	1992, 1998, 2000, 2003
Female	7349	0	1	0.50	0.50	1992, 1998, 2000, 2003
Public sector	7032	0	1	0.34	0.47	1992, 1998, 2000, 2003
Church Attendance	7220	1	4	1.81	1.05	1992, 1998, 2000, 2003
Father's voting behaviour	5943	0	1	0.37	0.48	1992, 1998, 2000, 2003
Parent's primary education	6978	0	1	0.33	0.47	1992, 1998, 2000, 2003
Parent's low secondary education	6978	0	1	0.37	0.48	1992, 1998, 2000, 2003
Parent's high secondary education	6978	0	1	0.16	0.36	1992, 1998, 2000, 2003
Parent's tertiary education	6978	0	1	0.09	0.29	1992, 1998, 2000, 2003
Parent's (post)-university education	6978	0	1	0.04	0.20	1992, 1998, 2000, 2003
Father's social-economic status	7071	10	90	43.49	16.09	1992, 1998, 2000, 2003

NOTES

[1] Alpha coefficient for dichotomous data, this is equivalent to the Kuder-Richardson 20.

[2] We prefer to use the EGP class categories for parent's social class. However, this variable has many missing values. To safe the reduction of the power of our data, we chose to use the father's social-economic status.

[3] We have also included all 11 fields of studies into models we do not show here. It turned out that the four scales of educational resources explain more variation than the field of studies. Therefore, we show the models where we control for educational resources.

[4] We also included father's educational resources in models we do not show here. None of them have explained the differences or a part of the differences between the social and cultural specialists and the technocrats. Including these indicators in the models reduce the power of our results. Therefore, we chose not to include them in the final models.

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